	! end if
	30 end extract
	print
	print "Sorted Data:"
5	<u>print</u>
	40 for each tools
	c1\$ + change\$ (tools(last_inv), '/','')
	print tools(toolno); tab (23); tools(model); &
	tab (35); tools(last_inv); tab(44); c\$
10	if valid $(c1\$, "digits") = 0$ then
	print; tab(53); "Date format is not digits"
	print #2: ;tab(53); " Date format is not digits"
•	end if
	! if valid (c1\$, "minlength 6") = 0 then
15	! print; tab(53); "Date format is short"
	! print #2: ;tab(53); "Date format is short"
	! end if
	IN THE CLAIMS:
	Please amend the claims as follows:
20	
	10. (Amended) The method of claim 9, including the additional step, after the step
	of reformatting, of manipulating information in the database utilizing [having] the
	reformatted date information [therein].
25	Please add new claims as follows:
	16. (New) A method of processing symbolic representations of dates stored in a
	database, comprising the steps of:
	providing a database with symbolic representations of dates stored therein
30	according to a format wherein M <sub>1</sub> M <sub>2</sub> is the numerical month designator, D <sub>1</sub> D <sub>2</sub>
	is the numerical day designator, and Y <sub>1</sub> Y <sub>2</sub> is the numerical year designator, all

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of the symbolic representations of dates falling within a 10-decade period of time;

selecting a window with a  $Y_A$   $Y_B$  value for a pivot date of the window,  $Y_A$   $Y_B$  being no later than the earliest  $Y_1$   $Y_2$  year designator in the database;

- determining a century designator C<sub>1</sub> C<sub>2</sub> for each symbolic representation of a
   date in the database, C<sub>1</sub> C<sub>2</sub> having a first value if Y<sub>1</sub> Y<sub>2</sub> is less than Y<sub>A</sub> Y<sub>B</sub> and
   having a second value if Y<sub>1</sub> Y<sub>2</sub> is equal to or greater than Y<sub>A</sub> Y<sub>B</sub>; and
   reformatting the symbolic representation of each symbolic representation of a
   date in the database, without the addition of any new data field to the database,
   with the reformatted symbolic representation of each date in the database
   having the values C<sub>1</sub> C<sub>2</sub>, Y<sub>1</sub> Y<sub>2</sub>, M<sub>1</sub> M<sub>2</sub>, and D<sub>1</sub> D<sub>2</sub>, in order to facilitate
   collectively further processing the reformatted symbolic representations of
   each of the symbolic representations of each of the dates.
  - 17. (New) The method of claim 16, wherein the window includes at least a portion of the decade beginning in the year 2000.
  - 18. (New) The method of claim 17, wherein the step of determining includes the step of:

determining the first value as 20 and the second value as 19.

- 19. (New) The method of claim 16, including an additional step, after the step of reformatting, of:
  - sorting the symbolic representations of dates.

20. (New) The method of claim 16, wherein the step of reformatting includes the step of:

reformatting each symbolic representation of a date into the format  $C_1 C_2 Y_1 Y_2$  $M_1 M_2 D_1 D_2$  separately from the symbolic representations in the database.

5 21. (New) The method of claim 20, including an additional step, after the step of reformatting, of:

sorting the symbolic representations of dates using a numerical-order sort.

- 22. (New) The method of claim 16, wherein the step of providing a database includes the step of:
- converting pre-existing date information having a different format into the format wherein  $M_1$   $M_2$  is the numerical month designator,  $D_1$   $D_2$  is the numerical day designator and  $Y_1$   $Y_2$  is the numerical year designator.
  - 23. (New) The method of claim 16, wherein the step of selecting includes the step of:
- 15 selecting  $Y_A Y_B$  such that  $Y_B$  is 0 (zero).
  - 24. (New) The method of claim 16, including an additional step, after the step of reformatting, of:
    - storing the symbolic representation of dates and their associated information back into the database.
- 25. (New) The method of claim 24, including the additional step, after the step of reformatting, of:

manipulating information in the database having the reformatted date information therein.

- 26. (New) A method of processing dates in a database, comprising the steps of:

  providing a database with dates stored therein according to a format wherein
- M<sub>1</sub> M<sub>2</sub> is the numerical month designator, D<sub>1</sub> D<sub>2</sub> is the numerical day

  designator, and Y<sub>1</sub> Y<sub>2</sub> is the numerical year designator, all of the symbolic

  representations of dates falling within a 10-decade period of time;

  selecting a window with a Y<sub>A</sub> Y<sub>B</sub> value for a pivot date of the window, Y<sub>A</sub> Y<sub>B</sub>

being no later than the earliest Y<sub>1</sub> Y<sub>2</sub> year designator in the database;

determining a century designator  $C_1$   $C_2$  for each date in the database,  $C_1$   $C_2$  having a first value if  $Y_1$   $Y_2$  is less than  $Y_A$   $Y_B$  and having a second value if  $Y_1$   $Y_2$  is equal to or greater than  $Y_A$   $Y_B$ :

reformatting the symbolic representation of each symbolic representation of a

- date in the database, without the addition of any new data field to the database,

  with the reformatted symbolic representation of each date in the database

  having the values C<sub>1</sub> C<sub>2</sub>, Y<sub>1</sub> Y<sub>2</sub>, M<sub>1</sub> M<sub>2</sub>, and D<sub>1</sub> D<sub>2</sub>, in order to facilitate

  collectively further processing the reformatted symbolic representations of

  each of the symbolic representations of each of the dates; and

  sorting the dates in the form C<sub>1</sub> C<sub>2</sub> Y<sub>1</sub> Y<sub>2</sub> M<sub>1</sub> M<sub>2</sub> D<sub>1</sub> D<sub>2</sub>.
- 27. (New) The method of claim 26, wherein the step of providing a database includes the step of:

converting pre-existing date information having a different format into the format wherein  $M_1$   $M_2$  is the numerical month designator,  $D_1$   $D_2$  is the numerical day designator and  $Y_1$   $Y_2$  is the numerical year designator.

28. (New) The method of claim 26, wherein the step of selecting includes the step

5 <u>of:</u>

selecting Y<sub>A</sub> Y<sub>B</sub> such that Y<sub>B</sub> is 0 (zero).

29. (New) The method of claim 26, including an additional step, after the step of sorting, of:

storing the sorted dates and their associated information back into the database.

30. (New) The method of claim 29, including the additional step, after the step of sorting, of:

manipulating information in the database having the reformatted dates therein.

- 31. (New) A method of processing symbolic representations of dates stored in a database, comprising the steps of:
- providing a database with symbolic representations of dates stored therein according to a format wherein Y<sub>1</sub> Y<sub>2</sub> is the numerical year designator;

  selecting a window with a Y<sub>A</sub> Y<sub>B</sub> value for the first decade of the window, Y<sub>A</sub>

  Y<sub>B</sub> being no later than the earliest Y<sub>1</sub> Y<sub>2</sub> year designator in the database;

  determining a century designator C<sub>1</sub> C<sub>2</sub> for each symbolic representation of a

  date in the database, C<sub>1</sub> C<sub>2</sub> having a first value if Y<sub>1</sub> Y<sub>2</sub> is less than Y<sub>A</sub> Y<sub>B</sub> and having a second value if Y<sub>1</sub> Y<sub>2</sub> is equal to or greater than Y<sub>A</sub> Y<sub>B</sub>; and

reformatting the symbolic representation of each symbolic representation of a

date in the database, without the addition of any new data field to the database,

with the reformatted symbolic representation of each date in the database

having the values C<sub>1</sub> C<sub>2</sub>, Y<sub>1</sub> Y<sub>2</sub>, in order to facilitate collectively further

processing the reformatted symbolic representations of each of the symbolic

representations of each of the dates.

- 32. (New) A method of processing dates in a database, comprising the steps of:

  providing a database with symbolic representations of dates stored therein

  according to a format wherein Y<sub>1</sub> Y<sub>2</sub> is the numerical year designator;
  - selecting a window with a  $Y_A$   $Y_B$  value for a pivot year of the window,  $Y_A$   $Y_B$  being no later than the earliest  $Y_1$   $Y_2$  year designator in the database;

    determining a century designator  $C_1$   $C_2$  for each symbolic representation of a date in the database,  $C_1$   $C_2$  having a first value if  $Y_1$   $Y_2$  is less than  $Y_A$   $Y_B$  and having a second value if  $Y_1$   $Y_2$  is equal to or greater than  $Y_A$   $Y_B$ ;
- reformatting the symbolic representation of each of the dates in the database, with the reformatted symbolic representation of each date in the database having the values C<sub>1</sub> C<sub>2</sub>, Y<sub>1</sub> Y<sub>2</sub>, in order to facilitate collectively further processing the reformatted symbolic representations of each of the dates; and
- sorting the dates in the form  $C_1 C_2 Y_1 Y_2$ .

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33. (New) A method of processing symbolic representations of dates stored in a database, comprising the steps of:

providing a database with symbolic representations of dates stored therein according to a format wherein Y<sub>1</sub> Y<sub>2</sub> is the numerical year designator;

selecting a window with a Y<sub>A</sub> Y<sub>B</sub> value for the first decade of the window, Y<sub>A</sub>

Y<sub>B</sub> being no later than the earliest Y<sub>1</sub> Y<sub>2</sub> year designator in the database;

determining a century designator C<sub>1</sub> C<sub>2</sub> for each symbolic representation of a

date in the database, C<sub>1</sub> C<sub>2</sub> having a first value if Y<sub>1</sub> Y<sub>2</sub> is less than Y<sub>A</sub> Y<sub>B</sub> and

having a second value if Y<sub>1</sub> Y<sub>2</sub> is equal to or greater than Y<sub>A</sub> Y<sub>B</sub>; and

reformatting the symbolic representation of each symbolic representation of a

date in the database, without changing any of the symbolic representations of a

date in the database during the reformatting step, with the reformatted symbolic

representation of each date in the database having the values C<sub>1</sub> C<sub>2</sub>, Y<sub>1</sub> Y<sub>2</sub>, in

order to facilitate collectively further processing the reformatted symbolic

representations of each of the dates.

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34. (New) A method for representing and utilizing dates stored in at least one date

field of a database utilizing symbolic representations of the dates stored in the at

least one date field of the database, which are in a format that creates ambiguity

between dates in each of a pair of adjacent centuries, comprising the steps of:

converting each of the symbolic representations of dates stored in the at least

one date field of the database to a symbolic representation of each of the

respective dates that does not create the ambiguity, by windowing the symbolic

representations of each of the respective dates as stored in the at least one date

field of the database against a pivot year represented by one of the symbolic

representations of the dates as stored in the at least one date field of the

	database, without the addition of any new data field to the database for
	purposes of such windowing and converting; and,
	running a program collectively on each of the converted symbolic
	representations of each of the respective dates to sort or otherwise manipulate
5	the dates represented by the converted symbolic representations, separately
	from the date data symbolic representations contained in the at least one date
	field of the database.
	35. (New) A method of claim 34 further comprising the step of:
14 2	opening the database prior to the step of converting.
10	
	36. (New) The method of claim 34 further comprising the step of:
	collectively sorting the converted symbolic representations prior to the step
	of running the program on the converted symbolic representations.
15	37. (New) The method of claim 35 further comprising the step of:
	collectively sorting the converted symbolic representations prior to the step
	of running the program on the converted symbolic representations.
	38. (New) The method of claim 34 further comprising the step of:
20	collectively manipulating the converted symbolic representations prior to
	the step of running the program on the converted symbolic representations.

(New) The method of claim 35 further comprising the step of:

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collectively manipulating the converted symbolic representations prior to the step of running the program on the converted symbolic representations.

- 40. (New) The method of claim 34 further comprising the step of:
- 5 collectively sorting the converted symbolic representations according to a different data field contained in the database from the at least one date field, prior to the step of running the program on the converted symbolic representations.
- 41. (New) The method of claim 35 further comprising the step of:
   10 collectively sorting the converted symbolic representations according to a different data field contained in the database from the at least one date field, prior to the step of running the program on the converted symbolic representations.
- 42. (New) The method of claim 34 further comprising the step of:

  collectively manipulating the converted symbolic representations according to a different data field contained in the database from the at least one date field, prior to the step of running the program on the converted symbolic representations.
- 43. (New) The method of claim 35 further comprising the step of:
   20 collectively manipulating the converted symbolic representations according to a different data entry field contained in the database from the at least one date field, prior to the step of running the program on the converted symbolic representations.

- 44. (New) The method of claim 34 wherein the program performs an operation which manipulates the data in a data field associated with the at least one date field of the database according to the converted symbolic representation of the date.
- 5 45. (New) The method of claim 35 wherein the program performs an operation which manipulates the data in a data field associated with the at least one date field of the database according to the converted symbolic representation of the date.
  - 46. (New) The method of claim 34 wherein the step of converting includes converting at least a substantial portion of each of the plurality of symbolic representations of dates in the at least one date field and repeating this step until each of the date data entries in the at least one date field is converted into the format that does not have the ambiguity.
- 15 47. (New) The method of claim 35 wherein the step of converting includes

  converting at least a substantial portion of each of the plurality of symbolic

  representations of dates in the at least one date field and repeating this step until

  each of the date data entries in the at least one date field is converted into the

  format that does not have the ambiguity.

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48. (New) The method of claim 46 further comprising the steps of:

collectively sorting the converted symbolic representations prior to the step
of running the program on the converted symbolic representations.

<u>49.</u>	(New) The method of claim 47 further comprising the steps of:
	collectively sorting the converted symbolic representations prior to the step
of ru	nning the program on the converted symbolic representations.

- 5 50. (New) The method of claim 46 further comprising the step of: collectively manipulating the converted symbolic representations.
  - 51. (New) The method of claim 49 further comprising the step of: collectively manipulating the converted symbolic representations.

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52. (New) The method of claim 46 further comprising the step of:

collectively sorting the converted symbolic representations according to a

different data field in the database than the at least one date field, prior to the step

of running the program.

53. (New) The method of claim 47 further comprising the step of:

collectively sorting the converted symbolic representations according to a

different data field in the database than the at least one date field, prior to the step

of running the program.

54. (New) The method of claim 52 further comprising the step of: collectively manipulating the converted symbolic.

55. (New) The method of claim 53 further comprising the step of:

## collectively manipulating the converted symbolic representations.

- Mich manipulates the data in a data field associated with the at least one date field of the database according to the converted symbolic representation of the date.
- Mew) The method of claim 53 wherein the program performs an operation which manipulates the data in a data field associated with the at least one date field of the database according to the converted symbolic representation of the date.

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- Mich manipulates the data in a data field associated with the at least one date field of the database according to the converted symbolic representation of the date.
- 15 59. (New) The method of claim 55 wherein the program performs an operation which manipulates the data in a data field associated with the at least one date field of the database according to the converted symbolic representation of the date.
- 60. (New) A method for representing and utilizing dates stored in at least one date

  field of a database utilizing symbolic representations of the dates stored in the at

  least one date field of the database, which are in a format that creates ambiguity

  between dates in each of a pair of adjacent centuries, comprising the steps of:

  converting each of the symbolic representations of dates stored in the at least

one date field of the database to a symbolic representation of each of the

respective dates that does not create the ambiguity, by windowing the symbolic representations of each of the respective dates as stored in the at least one date field of the database against a pivot year represented by one of the symbolic representations of the dates as stored in the at least one date field of the database, without modifying any of the symbolic representations of dates in the at least one date field of the database for purposes of such windowing and converting;

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of the respective dates to sort or otherwise manipulate data in the database according to the dates represented by the converted symbolic representations, separately from the date data symbolic representations of dates contained in the at least one date field of the database.

61. (New) A method for representing and utilizing dates stored in at least one date
field of a database utilizing symbolic representations of the dates stored in the at

15 least one date field of the database, which are in a format that creates ambiguity
between dates in each of a pair of adjacent centuries, comprising the steps of:

converting each of the symbolic representations of dates stored in the at least
one date field of the database to a symbolic representation of each of the
respective dates that does not create the ambiguity, by windowing the symbolic
representations of each of the respective dates as stored in the at least one date
field of the database against a pivot year represented by one of the symbolic
representations of the dates as stored in the at least one date field of the
database, without modifying any of the symbolic representations of dates in the

at least date field of the database for purposes of such windowing and converting;

running a program collectively on each of the converted symbolic

representations of each of the respective dates to sort or otherwise manipulate

the dates represented by the converted symbolic representations, separately

from the symbolic representations of dates contained in the at least one date

field of the database.

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62. (New) A method for representing and utilizing dates stored in at least one date field of a database utilizing symbolic representations of the dates stored in the at

least one date field of the database, which are in a format that creates ambiguity

between dates in each of a pair of adjacent centuries, comprising the steps of:

converting each of the symbolic representations of dates stored in the at least one date field of the database to a symbolic representation of each of the respective dates that does not create the ambiguity, by windowing the symbolic representations of each of the respective dates as stored in the at least one date field of the database against a pivot year represented by one of the symbolic representations of the dates as stored in the at least one date field of the database, without the addition of any new data field to the database for purposes of such windowing and converting;

20 storing the converted symbolic representations separate from the at least one date field of the database; and

running a program on the stored converted symbolic representations to sort or otherwise manipulate data in the database according to the dates represented by

the converted symbolic representations, separately from the symbolic representations of dates contained in the at least one date field of the database.

- 63. (New) A method for representing and utilizing dates stored in at least one date field of a database utilizing symbolic representations of the dates stored in the at
- 5 least one date field of the database, which are in a format that creates ambiguity between dates in each of a pair of adjacent centuries, comprising the steps of:

one date field of the database to a symbolic representation of each of the respective dates that does not create the ambiguity, by windowing the symbolic representations of each of the respective dates as stored in the at least one date field of the database against a pivot year represented by one of the symbolic representations of the dates as stored in the at least one date field of the database, without the addition of any new data field to the database for purposes of such windowing and converting;

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storing the converted symbolic representations separate from the at least one date field of the database; and

running a program collectively on the stored converted symbolic

representations to sort or otherwise manipulate the dates represented by the

converted symbolic representations, separately from the symbolic

representations of dates contained in the at least one date field of the database.

64. (New) A method for representing and utilizing dates stored in at least one date field of a database utilizing symbolic representations of the dates stored in the at

between dates in each of a pair of adjacent centuries, comprising the steps of:

converting each of the symbolic representations of dates stored in the at least
one date field of the database to a symbolic representation of each of the
respective dates that does not create the ambiguity, by windowing the symbolic
representations of each of the respective dates as stored in the at least one date
field of the database against a pivot year represented by one of the symbolic
representations of the dates as stored in the at least one date field of the
database, without modifying any of the symbolic representations of dates in the
at least one date field of the database for purposes of such windowing and
converting;

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storing the converted symbolic representations separate from the at least one
date field in the database; and

running a program on the stored converted symbolic representations to sort or

otherwise manipulate data in the database according to the dates represented by

the converted symbolic representations, separately from the symbolic

representations of dates contained in the at least one date field of the database.

65. (New) A method for representing and utilizing dates stored in at least one date field of a database utilizing symbolic representations of the dates stored in the at least one date field of the database, which are in a format that creates ambiguity between dates in each of a pair of adjacent centuries, comprising the steps of:

converting each of the symbolic representations of dates stored in the at least one date field of the database to a symbolic representation of each of the

respective dates that does not create the ambiguity, by windowing the symbolic representations of each of the respective dates as stored in the at least one date field of the database against a pivot year represented by one of the symbolic representations of the dates as stored in the at least one date field of the database, without modifying any of the symbolic representations of dates in the at least one date field of the database for purposes of such windowing and converting;

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storing the converted symbolic representations separate from the at least one date field in the database; and

running a program collectively on the stored converted symbolic

representations to sort or otherwise manipulate the dates represented by the

converted symbolic representations, separately from the symbolic

representations of dates contained in the at least one date field of the database.

66. (New) A method of processing dates in a database, comprising the steps of:
 providing a database with dates stored in at least one date field therein
 according to a format wherein M<sub>1</sub> M<sub>2</sub> is the numerical month designator, D<sub>1</sub> D<sub>2</sub>
 is the numerical day designator, and Y<sub>1</sub> Y<sub>2</sub> is the numerical year designator;
 selecting a window with a Y<sub>A</sub> Y<sub>B</sub> value for a pivot date of the window, Y<sub>A</sub> Y<sub>B</sub>
 being no later than the earliest Y<sub>1</sub> Y<sub>2</sub> year designator in the database;
 determining a century designator C<sub>1</sub> C<sub>2</sub> for each date in the database, C<sub>1</sub> C<sub>2</sub>
 having a first value if Y<sub>1</sub> Y<sub>2</sub> is less than Y<sub>A</sub> Y<sub>B</sub> and having a second value if Y<sub>1</sub>
 Y<sub>2</sub> is equal to or greater than Y<sub>A</sub> Y<sub>B</sub>;

reformatting the symbolic representation of each symbolic representation of a date in a portion of the at least one date field in the database, without the addition of any new data field to the database, with the reformatted symbolic representation of each date in the database having the values  $C_1$   $C_2$ ,  $Y_1$   $Y_2$ ,  $M_1$ 

 $M_2$ , and  $D_1$ ,  $D_2$ ; and

- repeating the step of reformatting until each symbolic representation of a date in the at least one date field has been reformatted in order to facilitate collectively further processing the reformatted symbolic representations of each of the symbolic representations of each of the dates.
- 10 67. (New) A method of processing dates in a database, comprising the steps of:

  providing a database with dates stored in at least one date field therein

  according to a format wherein Y<sub>1</sub> Y<sub>2</sub> is the numerical year designator;

  selecting a window with a Y<sub>A</sub> Y<sub>B</sub> value for a pivot date of the window, Y<sub>A</sub> Y<sub>B</sub>

  being no later than the earliest Y<sub>1</sub> Y<sub>2</sub> year designator in the database;
- determining a century designator C<sub>1</sub> C<sub>2</sub> for each date in the database, C<sub>1</sub> C<sub>2</sub>

  having a first value if Y<sub>1</sub> Y<sub>2</sub> is less than Y<sub>A</sub> Y<sub>B</sub> and having a second value if Y<sub>1</sub>

  Y<sub>2</sub> is equal to or greater than Y<sub>A</sub> Y<sub>B</sub>;
  - reformatting the symbolic representation of each symbolic representation of a

    date in a portion of the at least one date field in the database, without the

    addition of any new data field to the database, with the reformatted symbolic

    representation of each date in the database having the values C<sub>1</sub> C<sub>2</sub>, Y<sub>1</sub> Y<sub>2</sub>; and

in the at least one date field has been reformatted in order to facilitate

collectively further processing the reformatted symbolic representations of

each of the symbolic representations of each of the dates.

5 68. (New) A method of processing symbolic representations of dates stored in a database, comprising the steps of:

providing a database with symbolic representations of dates stored in at least one date field therein according to a format wherein Y<sub>1</sub> Y<sub>2</sub> is the numerical year designator;

Selecting a window with a Y<sub>A</sub> Y<sub>B</sub> value for the first decade of the window, Y<sub>A</sub>

Y<sub>B</sub> being no later than the earliest Y<sub>1</sub> Y<sub>2</sub> year designator in the at least one date

field of the database;

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date in the database,  $C_1$   $C_2$  having a first value if  $Y_1$   $Y_2$  is less than  $Y_A$   $Y_B$  and having a second value if  $Y_1$   $Y_2$  is equal to or greater than  $Y_A$   $Y_B$ ; and reformatting the symbolic representation of each symbolic representation of a date in at least one date field in the database, without the addition of any new data field to the database, with the reformatted symbolic representation of each date in the database having the values  $C_1$   $C_2$ ,  $Y_1$   $Y_2$ , in order to facilitate further processing of the reformatted symbolic representations of each of the symbolic representations of each of the dates, by running a program on the reformatted symbolic representations of each of the dates.

69. (New) A method of processing dates in a database, comprising the steps of:

providing a database with dates stored in at least one date field therein according to a format wherein Y<sub>1</sub> Y<sub>2</sub> is the numerical year designator; selecting a window with a Y<sub>A</sub> Y<sub>B</sub> value for a pivot year of the window, Y<sub>A</sub> Y<sub>B</sub> being no later than the earliest Y<sub>1</sub> Y<sub>2</sub> year designator in the database;

- determining a century designator  $C_1$   $C_2$  for each date in the at least one date

  field of the database,  $C_1$   $C_2$  having a first value if  $Y_1$   $Y_2$  is less than  $Y_A$   $Y_B$  and

  having a second value if  $Y_1$   $Y_2$  is equal to or greater than  $Y_A$   $Y_B$ ;

  reformatting the symbolic representation of each symbolic representation of a

  date in the at least one date field in the database, without the addition of any

  new data field to the database, with the reformatted symbolic representation of

  each date in the database having the values  $C_1$   $C_2$ ,  $Y_1$   $Y_2$ ;

  sorting the reformatted symbolic representations of the dates in the form  $C_1$   $C_2$   $Y_1$   $Y_2$ ; and
- running a program on the reformatted symbolic representations of each of the

  dates.

5:

- 70. (New) A method for representing and utilizing dates stored in at least one date field of a database utilizing symbolic representations of the dates stored in at least one date field of the database, which are in a format that creates ambiguity between dates in each of a pair of adjacent centuries, comprising the steps of
- 20 converting each of the symbolic representations of dates stored in the at least
  one date field of the database to a symbolic representation of each of the
  respective dates that does not create the ambiguity, by windowing the symbolic

representations of each of the respective dates as stored in the at least one date field of the database against a pivot year, with the pivot year being less than or equal to the earliest date represented by the symbolic representation of dates stored in the at least one date field, without the addition of any new data field to the database, and without modifying any of the symbolic representations of dates in the at least one date field, for purposes of such windowing and converting; and,

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running a program on the converted symbolic representations of each of the dates to sort or otherwise manipulate the dates represented by the converted symbolic representations, separately from the date data symbolic representations contained in the at least one date field of the database.

71. (New) A method for representing and utilizing dates stored in at least one date
field of the database utilizing symbolic representations of the dates stored in the at
least one date field of the database, which are in a format that creates ambiguity

between dates in each of a pair of adjacent centuries, comprising the steps of

converting each of the symbolic representations of dates stored in the at least
one date field of the database to a symbolic representation of each of the
respective dates that does not create the ambiguity, by windowing the symbolic
representations of each of the respective dates as stored in the at least one date

field of the database against a pivot year, with the pivot year being less than or
equal to the earliest date represented by a symbolic representation of dates
stored in the at least one date field, and without the addition of any new data
field to the database for purposes of such windowing and converting;

storing each of the converted symbolic representations of each of the dates separate from the database; and,

running a program on the stored converted symbolic representations of each of
the converted symbolic representations of the dates to sort or otherwise
manipulate the dates represented by the converted symbolic representations,
separately from the date data symbolic representations contained in the at least
one date field of the database.

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72. (New) A method of processing symbolic representations of dates stored in a database, comprising the steps of

selecting a database with symbolic representations of dates stored therein

according to a format wherein M<sub>1</sub> M<sub>2</sub> is the numerical month designator, D<sub>1</sub> D<sub>2</sub>

is the numerical day designator, and Y<sub>1</sub> Y<sub>2</sub> is the numerical year designator;

selecting a 10-decade window with a Y<sub>A</sub> Y<sub>B</sub> value for the first decade of the

window, Y<sub>A</sub> Y<sub>B</sub> being no later than the earliest Y<sub>1</sub> Y<sub>2</sub> year designator in the

database;

determining a century designator  $C_1$   $C_2$  for each symbolic representation of a date in the database,  $C_1$   $C_2$  having a first value if  $Y_1$   $Y_2$  is less than  $Y_A$   $Y_B$  and having a second value if  $Y_1$   $Y_2$  is equal to or greater than  $Y_A$   $Y_B$ ; and, reformatting the symbolic representation of each symbolic representation of a date in the database with the values  $C_1$   $C_2$ ,  $Y_1$   $Y_2$ ,  $M_1$   $M_2$ , and  $D_1$   $D_2$  prior to collectively further processing information contained within the database associated with the respective dates.

73. (New) A method of processing symbolic representations of dates stored in a database, comprising the steps of

providing a database with symbolic representations of dates stored therein according to a format wherein Y<sub>1</sub> Y<sub>2</sub> is the numerical year designator, all of the symbolic representations of dates falling within a 10-decade period of time; selecting a 10-decade window with a YA YB value for the first decade of the window, YA YB being no later than the earliest Y1 Y2 year designator in the database;

determining a century designator C<sub>1</sub> C<sub>2</sub> for each symbolic representation of a date in the database, C<sub>1</sub> C<sub>2</sub> having a first value if Y<sub>1</sub> Y<sub>2</sub> is less than Y<sub>A</sub> Y<sub>B</sub> and having a second value if Y<sub>1</sub> Y<sub>2</sub> is equal to or greater than Y<sub>A</sub> Y<sub>B</sub>; and, reformatting the symbolic representation of the date with the values C<sub>1</sub> C<sub>2</sub>, Y<sub>1</sub> Y<sub>2</sub>, to facilitate further processing of the dates.

74. (New) A method of processing dates in a database, comprising the steps of providing a database with symbolic representations of dates stored therein 15 according to a format wherein Y<sub>1</sub> Y<sub>2</sub> is the numerical year designator, all of symbolic representations of dates falling within a 10-decade period of time; selecting a 10-decade window with a YA YB value for the first decade of the window, Y<sub>A</sub> Y<sub>B</sub> being no later than the earliest Y<sub>1</sub> Y<sub>2</sub> year designator in the database;

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determining a century designator  $C_1$   $C_2$  for each date in the database,  $C_1$   $C_2$  having a first value if  $Y_1$   $Y_2$  is less than  $Y_A$   $Y_B$  and having a second value if  $Y_1$   $Y_2$  is equal to or greater than  $Y_A$   $Y_B$ ;

reformatting each date in the form  $C_1 C_2 Y_1 Y_2$  to facilitate further processing of the dates; and,

sorting the dates in the form C<sub>1</sub> C<sub>2</sub> Y<sub>1</sub> Y<sub>2</sub>.

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75. (New) A method of processing symbolic representations of dates stored in a database, comprising the steps of

providing a database with symbolic representations of dates stored therein according to a format wherein M<sub>1</sub> M<sub>2</sub> is the numerical month designator, D<sub>1</sub> D<sub>2</sub> is the numerical day designator, and Y<sub>1</sub> Y<sub>2</sub> is the numerical year designator; selecting a window with a Y<sub>A</sub> Y<sub>B</sub> value for a pivot date of the window, Y<sub>A</sub> Y<sub>B</sub> being no later than the earliest Y<sub>1</sub> Y<sub>2</sub> year designator in the database; determining a century designator C<sub>1</sub> C<sub>2</sub> for each symbolic representation of a date in the database, C<sub>1</sub> C<sub>2</sub> having a first value if Y<sub>1</sub> Y<sub>2</sub> is less than Y<sub>A</sub> Y<sub>B</sub> and having a second value if Y<sub>1</sub> Y<sub>2</sub> is equal to or greater than Y<sub>A</sub> Y<sub>B</sub>; and reformatting the symbolic representation of each symbolic representation of a date in the database, without the addition of any new data field to the database, with the reformatted symbolic representation of each date in the database having the values C<sub>1</sub> C<sub>2</sub>, Y<sub>1</sub> Y<sub>2</sub>, M<sub>1</sub> M<sub>2</sub>, and D<sub>1</sub> D<sub>2</sub>, in order to facilitate further processing of the reformatted symbolic representations of each of the symbolic representations of each of the dates.